

TO-92 Plastic-Encapsulate Transistors

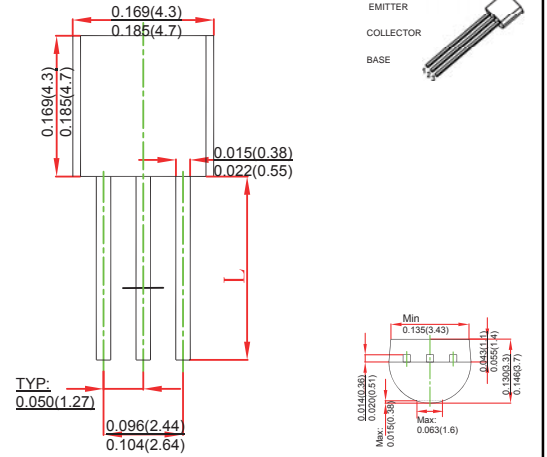
FEATURES

- High current transistors
- TRANSISTOR (NPN)

MECHANICAL DATA

- Case style: TO-92 molded plastic
- Mounting position: any

TO-92



MAXIMUM RATINGS AND CHARACTERISTICS

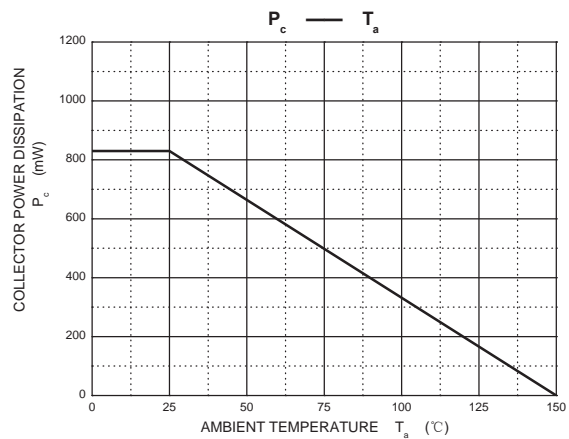
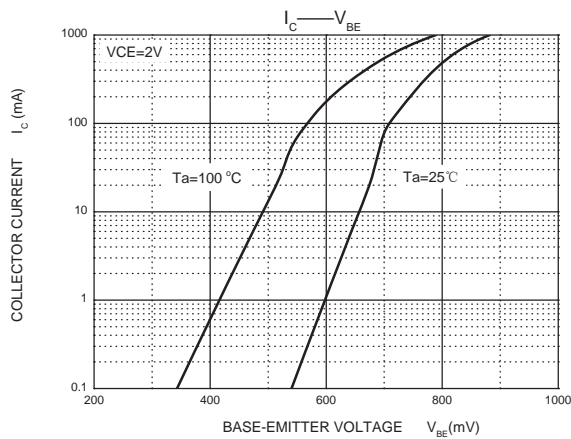
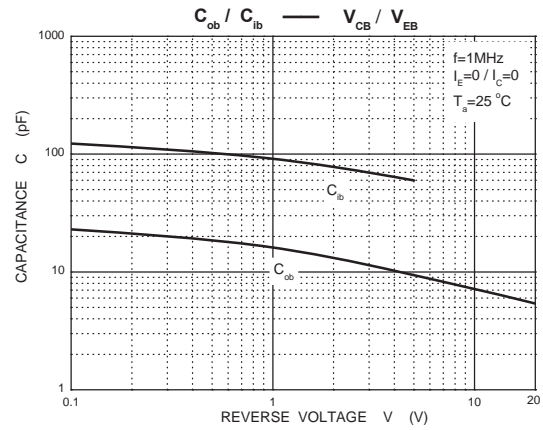
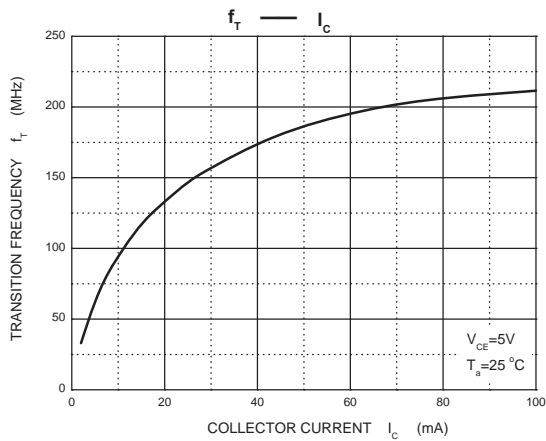
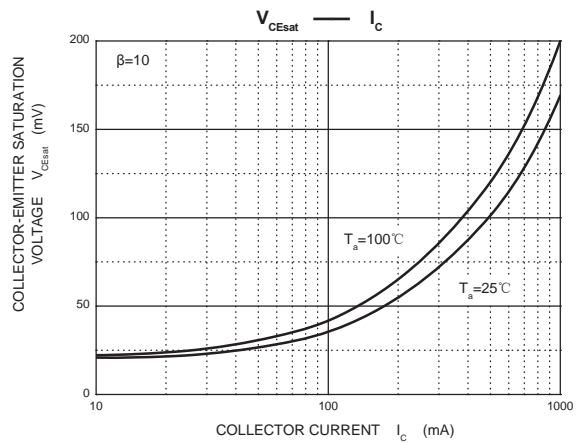
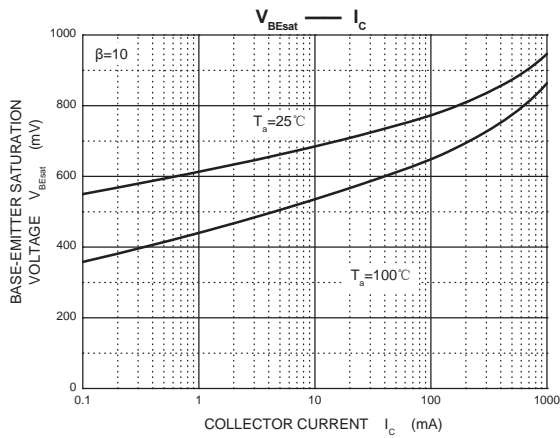
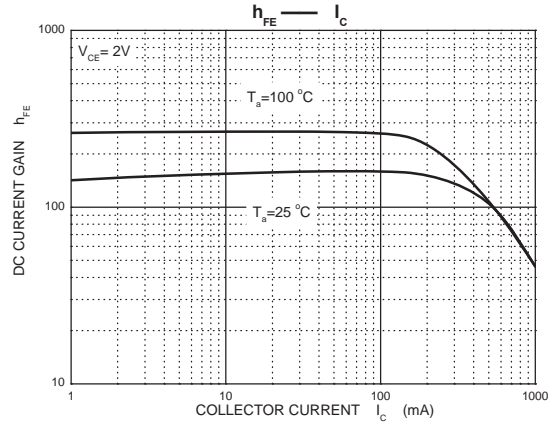
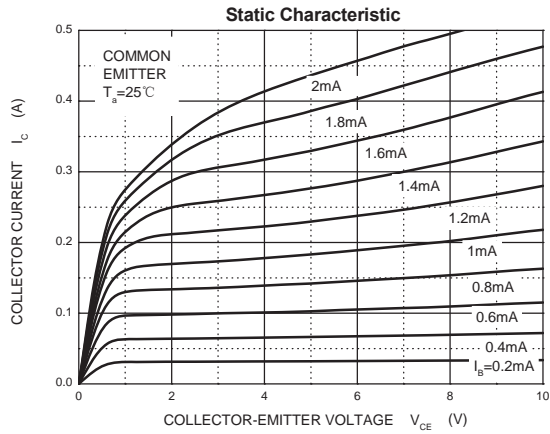
@ 25°C Ambient Temperature (unless otherwise noted)

Symbol	Parameter	Value	Unit
V_{CBO}	Collector-Emitter Voltage	BC635 45	V
		BC637 60	V
		BC639 100	V
V_{CEO}	Collector-Emitter Voltage	BC635 45	V
		BC637 60	V
		BC639 80	V
V_{EBO}	Emitter-Base Voltage	5	V
I_C	Collector Current -Continuous	1	A
P_C	Collector Power Dissipation	0.83	W
T_J	Junction Temperature	150	°C
T_{stg}	Storage Temperature	-65-150	°C

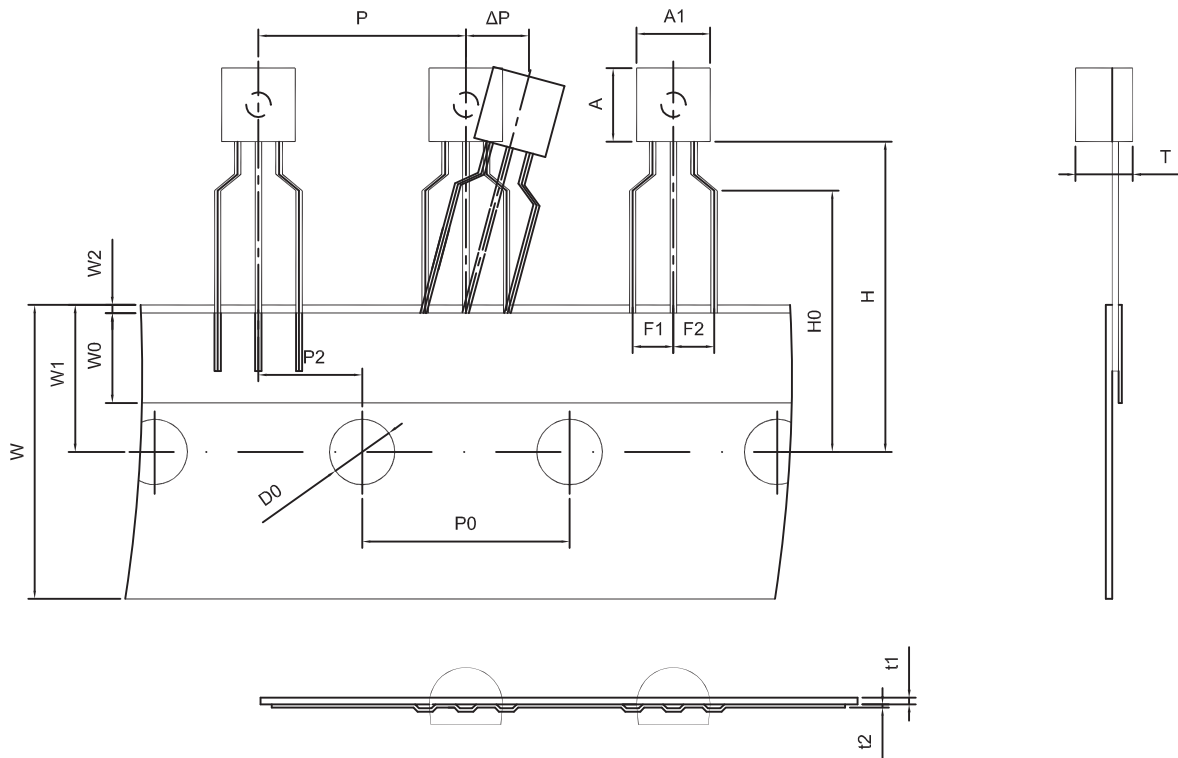
ELECTRICAL CHARACTERISTICS $T_a = 25^\circ\text{C}$ unless otherwise specified

Parameter	Symbol	Test conditions	Min	Typ	Max	Unit
Collector-emitter breakdown voltage	$V_{(BR)CEO}$	$I_C=10\text{mA}, I_B=0$ BC635	45			V
		BC637	60			V
		BC639	80			V
Collector cut-off current	I_{CBO}	$V_{CB}=30\text{V}, I_E=0$			0.1	μA
Emitter cut-off current	I_{EBO}	$V_{EB}=5\text{V}, I_B=0$			0.1	μA
DC current gain	$h_{FE(1)}$	$V_{CE}=2\text{V}, I_C=5\text{mA}$	25			
	$h_{FE(2)}$	$V_{CE}=2\text{V}, I_C=150\text{mA}$ BC635	40		250	
		BC637-10/BC639-10	63		160	
	$h_{FE(3)}$	$V_{CE}=2\text{V}, I_C=500\text{mA}$	25			
Collector-emitter saturation voltage	$V_{CE(sat)}$	$I_C=500\text{mA}, I_B=50\text{mA}$			0.5	V
Base-emitter voltage	V_{BE}	$V_{CE}=2\text{V}, I_C=500\text{mA}$			1	V
Transition frequency	f_T	$V_{CE}=5\text{V}, I_C=10\text{mA}, f=50\text{MHz}$		100		MHz

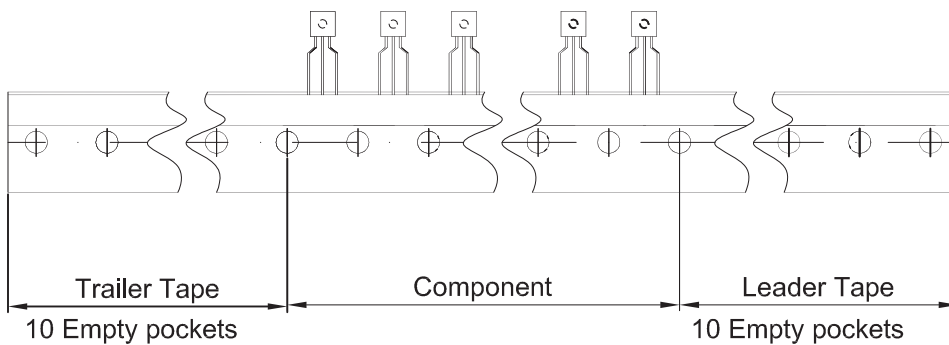
Typical Characteristics



TO-92 PACKAGE TAPEING DIMENSION



Dimiensions are in millimeter								
A1	A	T	P	P0	P2	F1	F2	W
4.5	4.5	3.5	12.7	12.7	6.35	2.5	2.5	18.0
W0	W1	W2	H	H0	D0	t1	t2	ΔP
6.0	9.0	1.0 MAX.	19.0	16.0	4.0	0.4	0.2	0



Package	Box	Box Size(mm)	Carton	Carton Size(mm)
TO-92	2000 pcs	333×162×43	20,000 pcs	350×340×250